Amendments to the Specification

Please replace paragraph 7 with the following replacement paragraph in which no new matter has been added:

An alternative architecture introduces the idea of dividing the vehicle into geographic regions and locating a single controller for all of the features in that region. This architecture may also include the concept of smart peripherals to reduce the number of interconnections in localized areas of the vehicle. The smart peripherals use simple serial communication busses such as Local Interconnect Network ("LIN") to relay information from sensors to the zone controller or to accept actuator commands from the zone controller. The zone controllers also act as power and ground distribution points for the smart peripherals.

Please replace paragraph 21 with the following replacement paragraph in which no new matter has been added:

It should also be understood that, unless a term is expressly defined in this patent using the sentence "As used herein, the term '______' is hereby defined to mean..." or a similar sentence, there is no intent to limit the meaning of that term, either expressly or by implication, beyond its plain or ordinary meaning, and such term should not be interpreted to be limited in scope based on any statement made in any section of this patent (other than the language of the claims). To the extent that any term recited in the claims at the end of this patent is referred to in this patent in a manner consistent with a single meaning, that is done for sake of clarity only so as to not confuse the reader, and it is not intended that such claim term [[by]] be limited, by implication or otherwise, to that single meaning. Finally, unless a claim element is defined by reciting the word "means" and a function without the recital of any structure, it is not intended that the scope of any claim element be interpreted based on the application of 35 U.S.C. § 112, sixth paragraph.

Please replace paragraph 25 with the following replacement paragraph in which no new matter has been added

The power management device or hub 200 has [[an]] ports 212-215 for receiving electrical energy. The switches 204, 206, 208, 210 are particularly suited for receiving power as will be discussed further with respect to FIG. 3. When electrical energy is received at one of the ports 212-215 it is routed to a regulator 226. The processor 202 may then be activated.

Please replace paragraph 28 with the following replacement paragraph in which no new matter has been added:

When the hub 200 determines that the electrical energy being supplied is <u>a</u> primary power source, the processor places the node in an active mode. In an initial power on state, or other situations where no previous programming or operational state data is available, the active mode includes configuring the switches 204, 206, 208, 210 not already configured as inputs as outputs for routing power out <u>to</u> one of the ports 212-215 to other connected nodes or hubs 105, 110, 115.

Please replace paragraph 30 with the following replacement paragraph in which no new matter has been added:

The elements of the node or hub 200 are known and available. The processor can be a simple microcontroller such as those available from Motorola, Inc, or another processor. The coding for the processor may be done in a high level language such as "C" and compiled for the processor or microcontroller used. The voltage regulator 226 is a commodity part available from a number of suppliers or may be designed from discrete components by one of ordinary skill in the art. The high-side and low-side [[switches]] <u>drivers</u> 222, 224 are

selected according to the load 218, 220 and may range from a simple transistor to an electro-mechanical relay. The bi-directional switches 204, 206, 208, 210 are discussed below.

Please replace paragraph 31 with the following replacement paragraph in which no new matter has been added:

Referring to FIG. 3, a schematic illustration of one of the switch elements of a node of the communication and power distribution architecture is discussed and described. An exemplary switch 300 suitable for use in hub 200 has an in/out 1 connection 302 that is connected to both a sense and ~~logic circuit~~ input control network 304 and a switch matrix 306. The switch 300 also has a power control circuit 308. The power control circuit 308 also has an optional current sensing circuit 310. The circuit 304 has power control inputs 312 and 314 for setting the direction of current flow. The power is switched by an input switch module 316 and an output switch module 318. The output switch module is connected to the in/out 2 connection 320. Connection 320 is part of a star connection of similar outputs of the other switch elements in the node 200.

Please replace paragraph 32 with the following replacement paragraph in which no new matter has been added:

In operation, initial power applied to the in/out 1 connection 302 powers the sense and logic circuit 304. When powered, the sense and logic circuit 304 turns on the [[in]] input switch module 316, supplying power to the in/out 2 connection and the regulator 226. After power is supplied to the regulator 226 and processor 202 the two switch modules 316, 318 are independently controllable and can be used to set the direction of current flow between in/out 1 302 and in/out 2 320.

Please replace paragraph 34 with the following replacement paragraph in which no new matter has been added:

FIG. 4, a flow chart of the power on sequence for a communication and power distribution architecture is discussed and described. The method details a way of sequentially starting a plurality of nodes 200 when no previous state data is available. This may be the case, for example, upon initial power up during manufacturing or after the introduction of one or more new nodes 200 in a repair situation. Power is applied during step 402 to a first node 200, generally the node closest to the power source, such as a battery 125, 130. The node 200 may then communicate with the power source to determine during step 404 the nature of the power, if the node 200 is not able to determine the power type on its own, as discussed above. The power may be one of at least two kinds, a primary power or a secondary power. When the power is a secondary power, the no branch of step 406 is followed and the node 200 is placed during step 408 in a standby mode to await further instructions. When the power is determined to be a primary power, the yes branch of step 406 is followed. Power is routed during step 410 to another node of the network 100, generally a node downstream from the node closest to the battery 125, 130. It can be seen that this asynchronous application of power will rapidly cascade through a web-type network of the [[one]] type shown in this embodiment. While other embodiments can be envisioned, where some nodes 200 may be left in a standby mode, it is most often the case where all nodes will receive primary power with a minimum number of "hops" from the source of primary power such as batteries 125, 130. The node 200, whether in an active mode or in a standby mode, communicates during step 412 with a controller, either a central controller or a processor 202 from one of the nodes to receive instructions for setting an operating state. In some cases, the operating state will relate to powering during step 414 loads 218, 220 in a

sequential or other predetermined manner. The communication capability of the node 200 may be used to communicate during step 416 the condition of the node 200 as well as any fault or maintenance conditions determined on the periphery of the node 200. As discussed above, a central controller can use the power, ground and communication architecture 100 to power loads 218, 220 and [[others]] other loads to reduce the instantaneous change in power supplied by the power distribution network, that may induce an undesirable load dump-like condition.